DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 07/03/08 have been fully considered but they are not persuasive.

Applicant argues that neither Liddy et al., nor Park et al., teach providing an accurate translation that conforms to the proper punctuation, syntax, and semantics of a specified language (Amendment, pages 9 - 12).

The examiner disagrees, Park et al., teach that "if there are translations generated, executing a comparison processing for the generated translations, based on a semantic category tree, thereby eliminating unnecessary ones of the translations; analyzing a collocation of the resultant translations by reference to a collocation information dictionary, thereby eliminating unnecessary one of the analyzed translations. Collocation information about the words commonly used with the index word is stored in the collocation information dictionary. The collocation information includes word pairs each consisting of two words having a collocation relation in one sentence, and the frequency of use of the word pair in sentences" (col.2, lines 48 – 55; col.7, lines 9 - 14). Comparing the generated translations to a semantic tree and using a collocation information dictionary to eliminate unnecessary ones of the translations implies providing a linguistically accurate translation that conforms to the proper punctuation, syntax, and semantics of a specified language, since collocation

information defines how words can be arranged in a sentence, which is similar to syntax.

Applicant argues that neither Liddy et al., nor Park et al., teach providing analyzing a command to determine the target translation language (Amendment, page 11).

The examiner disagrees, Park et al., teach that "providing a multilingual query transformation system and method capable of automatically transforming queries into the language supported by a known web information retrieval system" (page 2, lines 10 – 14). Providing automatic transformation queries into the language supported by a known web information retrieval system implies determining the target translation language.

Applicant argues that neither Liddy et al., nor Park et al., teach notifying the user of a degree of confidence that the translation is accurate (Amendment, page 11).

The examiner agrees, but this newly added limitation is rejected in view of Aityan. Please see claim rejection below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1- 7, 9 –37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liddy et al., (US Patent 6,006,221) in view of Park et al., (US Patent 6,064,951).

As per claims 1, 11, 22, and 35, Liddy et al., teach a data translation system comprising:

an interface component that receives requests for data from a user ("enable a user to enter a query"; col.2, lines 43 – 45); and

a translation component that retrieves data in accordance with the requests and returns the data to the user in a specified language, the translation component comprising an inference component that, upon retrieval, translates result data into one or more languages, the inference component including a context analyzer component to provide a linguistically accurate translation ("this does not mean, however, that retrieved documents could not then be translated, by machine or otherwise, if deemed appropriate by the user. Using the original language of the input text as a useful context for selecting the most appropriate sense of the words in a sentence. Each machine translation will process source documents to create a given translation without human intervention or aid"; col.7, lines 18 – 21; col.11, lines 56 – 58; col.22, lines 46 – 48).

However, Liddy et al., do not specifically teach providing an accurate translation that conforms to the proper punctuation, syntax, and semantics of a specified language.

Park et al., teach that if there are translations generated, executing a comparison processing for the generated translations, based on a semantic category tree, thereby eliminating unnecessary ones of the translations; analyzing a collocation of the resultant

translations by reference to a collocation information dictionary, thereby eliminating unnecessary one of the analyzed translations (col.2, lines 48 – 55; col.7, lines 9 - 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a semantic tree and a collocation information dictionary in translation as taught by Park et al., in Liddy et al., because that would eliminate an ambiguousness of words involved in the transformation of the queries; thereby generating a desired query usable as an input for the Web information retrieval system (col.2, lines 15 – 18).

As per claim 2, Liddy et al., further disclose a language identification component that determines the specified language of a user (col.7, line 26).

As per claim 3, Liddy et al., further disclose a conversion component that receives data requests in a plurality of different formats and converts the requests into executable queries on data (“accepts raw, unformatted text and transfers this to a standard format suitable”; col.8, lines 42 – 45).

As per claims 4, 12, 23, Liddy et al., further disclose that the request is a structured query in the user's preferred language (“enter queries in the user’s native language”; col.2, lines 52 - 54).

As per claims 5, 13, 26, Liddy et al., further disclose that the request is a natural language request (col.2, lines 44, and 45).

As per claims 6, 15, 24, Liddy et al., further disclose that the translation component comprises: one or more translation tables; and a mapping component that maps retrieved data to its corresponding translation in a translation table (fig.4 shows translation tables that map French words to English words; col11, lines 13 – 15; col.15, lines 42 – 49).

As per claims 7, 16, Liddy et al., further disclose that the translation tables are set up by a database administrator ("multilingual mapping terminology managers"; col.13, 18, and 19; col.22, lines 50 – 53).

As per claims 9, 17, 25, Liddy et al., further disclose that the inference component including a dictionary component to facilitate data translations (col.11, lines 32, and 60 – 64).

As per claim 10, Liddy et al., further disclose that the context analyzer receives metadata associated with result data ("meta-textual"; col.22, lines 27 – 29).

As per claims 14, 27, 36, Liddy et al., further disclose that the database is a multidimensional database ("database that includes documents in at least one other language of the plurality of supported languages"; col.2, lines 46 – 48).

As per claim 18, Liddy et al., further disclose a sort component that receives collation information from a user and sorts resulting data in accordance with the collation information ("components in a query tend to occur in a certain repetitive sequence… documents are arranged in ranked order according to their relative relevance to the substance of a query"; col.17, lines 12, and 13; col.18, lines 35 – 37).

As per claim 19, Liddy et al., further disclose that the collation information includes the language to be used for sorting ("enter queries in the user's native language"; col.2, lines 52 - 54).

As per claim 20, Liddy et al., teach an online analytical processing (OLAP) system comprising: an interface component to receive queries ("enable a user to enter a query"; col.2, lines 43 – 45)

a translation component that retrieves data and metadata from a multidimensional database ("database that includes documents in at least one other language of the plurality of supported languages") in accordance with a query and translates resulting data and metadata from a system base language into one or more

user languages ("machine translation of relevant documents"; col.22, lines 30 – 37; col.2, lines 46 – 48);

wherein the translation component comprising an inference component that, upon retrieval, translates result data into one or more languages, the inference component including a context analyzer component to provide a linguistically accurate translation ("this does not mean, however, that retrieved documents could not then be translated, by machine or otherwise, if deemed appropriate by the user. Using the original language of the input text as a useful context for selecting the most appropriate sense of the words in a sentence. Each machine translation will process source documents to create a given translation without human intervention or aid"; col.7, lines 18 – 21; col.11, lines 56 – 58; col.22, lines 46 – 48).

However, Liddy et al., do not specifically teach providing an accurate translation that conforms to the proper punctuation, syntax, and semantics of a specified language.

Park et al., teach that if there are translations generated, executing a comparison processing for the generated translations, based on a semantic category tree, thereby eliminating unnecessary ones of the translations; analyzing a collocation of the resultant translations by reference to a collocation information dictionary, thereby eliminating unnecessary one of the analyzed translations (col.2, lines 48 – 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a semantic tree and a collocation information dictionary in translation as taught by Park et al., in Liddy et al., because that would eliminate an ambiguousness of words involved in the transformation of the queries;

thereby generating a desired query usable as an input for the Web information retrieval system (col.2, lines 15 – 18).

As per claim 21, Liddy et al., further disclose that the translation component maps resulting data and metadata to a translation table to produce translated data and metadata (fig.4 shows translation tables that map French words to English words; col11, lines 13 – 15; col.15, lines 42 – 49).

As per claims 28, 37 Liddy et al., further disclose that a computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 22 (col.4, lines 25 – 27).

As per claim 29, Liddy et al., teach a method of translating database data comprising:

receiving a language selection (“enter queries in the user’s native language”; col.22, lines 52 – 54);

receiving a query in a first format; converting the query to a second format (“accepts raw, unformatted text and transfers this to a standard format suitable”; col.8, lines 42 – 45);

executing the query on a database; and translating received result data to the selected language; and utilizing context information to provide a linguistically accurate translation (“this does not mean, however, that retrieved documents could not then be

translated, by machine or otherwise, if deemed appropriate by the user. Using the original language of the input text as a useful context for selecting the most appropriate sense of the words in a sentence. Each machine translation will process source documents to create a given translation without human intervention or aid"; col.7, lines 18 – 21; col.11, lines 56 – 58; col.22, lines 46 – 48).

However, Liddy et al., do not specifically teach providing an accurate translation that conforms to the proper punctuation, syntax, and semantics of a specified language.

Park et al., teach that if there are translations generated, executing a comparison processing for the generated translations, based on a semantic category tree, thereby eliminating unnecessary ones of the translations; analyzing a collocation of the resultant translations by reference to a collocation information dictionary, thereby eliminating unnecessary one of the analyzed translations (col.2, lines 48 – 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a semantic tree and a collocation information dictionary in translation as taught by Park et al., in Liddy et al., because that would eliminate an ambiguousness of words involved in the transformation of the queries; thereby generating a desired query usable as an input for the Web information retrieval system (col.2, lines 15 – 18).

As per claim 30, Park et al., further disclose that the first query format is in a first language and the second query format is in a second language (col.2, lines 27 – 29).

As per claim 31, Liddy et al., further disclose the first query format is in a first language ("enter queries in the user's native language"; col.2, lines 52 - 54).

As per claim 32, Liddy et al., further disclose translating the result data comprises mapping data and meta-data to a translation table associated with the selected language (fig.4 shows translation tables that map French words to English words; col11, lines 13 – 15; col.15, lines 42 – 49).

As per claim 33, Liddy et al., further disclose sorting the translated data based on collation properties specified by a user ("components in a query tend to occur in a certain repetitive sequence… documents are arranged in ranked order according to their relative relevance to the substance of a query"; col.17, lines 12, and 13; col.18, lines 35 – 37).

As per claim 34, Liddy et al., further disclose that a computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 29 (col.4, lines 25 – 27).

4. Claims 38 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al., (US Patent 6,064,951), in view of Liddy et al., (US Patent 6,006,221), and further in view of Aityan (US PAP 2002/0169592).

As per claim 38, Park et al., teach a method of interacting with a database comprising: specifying a command in an unknown language, wherein the command is based at least in part on a user input; analyzing the command to determine a first language; receiving the command and translating the command into a second language; and performing an operation on a database in accordance with the command of the second language ("generating translations of the input query… and a transformed query memory unit for storing the query transformed from the source language into a target language"; col.2, lines 19 – 34);

providing an accurate translation that conforms to the proper punctuation, syntax, and semantics of the first language (col.2, lines 48 – 55; col.7, lines 9 - 14).

However Park et al., do not specifically teach utilizing context information to facilitate translations in at least one of the performance of the operation on the database or translation of a queried result, upon retrieval; notifying the user of a degree of confidence that the translation is accurate.

Liddy et al., teach that this does not mean, however, that retrieved documents could not then be translated, by machine or otherwise, if deemed appropriate by the user. Using the original language of the input text as a useful context for selecting the most appropriate sense of the words in a sentence. Each machine translation will process source documents to create a given translation without human intervention or aid (col.7, lines 18 – 21; col.11, lines 56 – 58; col.22, lines 46 – 48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to translate the retrieved documents as taught by Liddy et

al., in view of Park et al., so that the retrieved documents can be clearly understood by different groups of people.

However Park et al., in view Liddy et al., do not specifically teach notifying the user of a degree of confidence that the translation is accurate.

Aityan teaches translate a text from a first source language into a second target language. The system assigns probabilities or scores to various target-language translations and then displays or makes otherwise available the highest scoring translations (paragraph 15, lines 1- 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to display scores to various target-language translations as taught by Aityan, because that would help improve the automated translation of natural languages (paragraph 22).

As per claim 39, Park et al., further disclose that the command is to store a data in the database ("memory unit for storing the query transformed from the source language into a target language"; col.2, lines 32 – 34).

As per claim 40, Park et al., further disclose translating the command into a second language includes translating a natural language command into a structured command in the base language of the system ("translations of the input query and filtering unnecessary ones of the generated translations"; col.2, lines 27 – 32).

As per claim 41, Park et al., further disclose that a computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 38 ("electronic dictionary"; col.2, lines 29 – 32).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD SAINT CYR whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone

number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
10/29/08
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